

ASSIGNMENT 4

Textbook Assignment: "Reproduction Equipment," chapter 4, pages 4-1 through 4-42.

- 4-1. What should you avoid when using reproduction equipment?
1. Too many extension cords
 2. Surge suppressors
 3. Using equipment too long
 4. Using too many pieces of equipment at once
- 4-2. Before cleaning a piece of reproduction equipment, what is the first step you should take?
1. Turn the power on
 2. Turn the power off
 3. Inform the supervisor
 4. Check out with the supervisor
- 4-3. When should you de-energize electrically powered equipment?
1. When the deck is wet
 2. When the humidity is high
 3. When you secure for the day
 4. When you secure for the weekend
- 4-4. Which of the following clutter is especially dangerous near a keyboard?
1. Food
 2. Drink
 3. Ashes
 4. Debris
- 4-5. What action do you take to protect equipment before deploying?
1. Unplug and clean equipment
 2. Tie, strap, or secure equipment
 3. Power down and unplug equipment
 4. Power up and make ready equipment
- 4-6. What criteria is used to classify copiers?
1. Volume range and speed
 2. Shop or command needs
 3. Options and speed
 4. Options and brand
- 4-7. When purchasing a black-and-white copier, what primary variables do you consider?
1. Electrostatic, thermographic, or digital technology
 2. Speed, resolution, and volume
 3. Location, options, and brand
 4. Space and electrical draw
- 4-8. What type of copier technology fixes the toner image to paper with heat?
1. Laser
 2. Thermal
 3. Digital
 4. Electrostatic
- 4-9. What type of copier technology uses color toner instead of a ribbon to create an image on paper?
1. Electrostatic
 2. Thermal
 3. Digital
 4. Laser
- 4-10. You can increase the contrast in a weak master by depressing which of the following buttons?
1. REDUCE
 2. ENLARGE
 3. COLLATE
 4. LIGHT/DARK
- 4-11. When a copier is consistently troublesome, why should you notify a key operator?
1. To admit defeat
 2. To have it fixed right
 3. To have someone else fix it
 4. To have someone trained in copier technology fix it
- 4-12. A copier that is low on toner will have which of the following symptoms?
1. Blank pages
 2. Letter fill in
 3. Letter drop out
 4. Uneven resolution
- 4-13. What machine is capable of producing quality copies on vellum, acetate, and paper?
1. A thermographic copier
 2. A diazo machine
 3. A ditto master
 4. A typewriter

- 4-14. What component of an anhydrous diazo machine distributes the ammonia vapor?
1. Drip trays
 2. Heater rods
 3. Blower unit
 4. Distilled water
- 4-15. A diazo machine consists of four distinct components that include a printing section, a developing section, and what other sections?
1. Blower and timer
 2. Blower and heating
 3. Cooling and exhaust
 4. Cooling and ejection
- 4-16. The heating rods of an anhydrous diazo machine are a part of what section?
1. Developing
 2. Printing
 3. Cooling
 4. Exhaust
- 4-17. The blower and timer serve which of the following functions?
1. To expel fumes
 2. To cool heater rods and drip trays
 3. To deposit residue into the residue collection bottle
 4. Each of the above
- 4-18. What is the first step in starting up the diazo machine for use?
1. Turn on the machine
 2. Adjust the ammonia flow
 3. Run the machine for a warm-up period
 4. Insert the drain tube into the residue collection bottle
- 4-19. To what speed should you adjust the ammonia feed rate after turning the main power switch on?
1. 50 to 60 drops per minute
 2. 60 to 70 drops per minute
 3. 20 feet per minute
 4. 20 minutes
- 4-20. What is the approximate warm-up time for a diazo machine?
1. 10 minutes
 2. 20 minutes
 3. 30 minutes
 4. 40 minutes
- 4-21. What is the approximate cool down period for a diazo machine that has been running continuously for 6 hours?
1. 10 minutes
 2. 20 minutes
 3. 30 minutes
 4. 40 minutes
- 4-22. When you secure the machine for the day, why should you feed a sheet of porous paper through the diazo machine?
1. To soak up residual ammonia
 2. To cool the printing cylinder
 3. To prevent the web belts from sticking
 4. To prevent the sealing sleeve from sticking and the belts from residual heat
- 4-23. What steps are a part of daily maintenance for a diazo machine?
1. Cleaning the feedboard
 2. Lubrication of all bearings
 3. Cleaning and dusting all hoses
 4. Cleaning the inside of the cylinder
- 4-24. Careless handling of ammonia can cause what problems?
1. Smoke and fire
 2. A pungent odor
 3. Blindness and burns
 4. Discoloration and fading of surfaces
- 4-25. Desensitized areas in a diazo blue-line print will appear as what color after development?
1. Blue
 2. Black
 3. Clear
 4. Yellow
- 4-26. Why should you NEVER store diazo prints and foils with conventional photographs?
1. Diazo images will deteriorate
 2. Photographs will fade and discolor
 3. Diazo images will transfer to the photograph surface
 4. Photographic surfaces will transfer to the diazo print
- 4-27. Diazo material is NOT sensitive to light or temperature, but is sensitive to time.
1. True
 2. False

- 4-28. What type of bulb is found in most diazo machines?
1. Fluorescent
 2. Ultraviolet
 3. Incandescent
 4. Mercury vapor
- 4-29. The best image possible from a diazo machine occurs when the master and the material enter the feed assembly in what fashion?
1. Emulsion side up
 2. Emulsion side down
 3. Emulsion to emulsion
 4. Emulsion against the feedboard
- 4-30. Why must you carefully handle paper or film when you load a phototypesetting machine?
1. To avoid chemical contamination by your hands
 2. To avoid chemical contamination to your hands
 3. To avoid spilling chemical developers
 4. To avoid damage to the soft emulsion
- 4-31. To make sure the phototypesetter operates well, which maintenance step should you perform daily?
1. Rinse the roller assembly and trays
 2. Oil all bearings with No. 10 lube oil
 3. Clean all mirrored surfaces with a rag
 4. Clean all optical surfaces with glass cleaner
- 4-32. What type of phototypesetter is commonly found in Navy Graphics shops?
1. CRT technology
 2. Raster scan technology
 3. First-generation technology
 4. Fourth-generation technology
- 4-33. The term "on the fly" refers to what type of phototypesetter process?
1. Fiber optics
 2. Digital memory
 3. Raster scanning
 4. Electromechanical
- 4-34. What phototypesetter technology is an example of fourth-generation technology?
1. Raster scan and fiber optics
 2. Electromechanical
 3. Cast hot type
 4. Digitization
- 4-35. A halftone, point, and pixel are synonymous units of measure for image definition.
1. True
 2. False
- 4-36. What developing process is not permanent?
1. Stabilization
 2. Photographic
 3. Transfer
 4. Therms 1
- 4-37. How can you tell if the chemicals in a phototypesetter need replenishment?
1. Weak images
 2. Streaked images
 3. Thin grey images
 4. Each of the above
- 4-38. Pressure process lettering machines produce which kind of letter?
1. Ghost
 2. cutout
 3. Carbon
 4. Carbon or cutout
- 4-39. When you use a pressure process lettering machine that cuts letters from a vinyl or paper tape, how do position the raised image on the font in the channel?
1. Toward the tape
 2. Behind the tape
 3. Between the tape
 4. Away from the tape
- 4-40. What must you do to preserve the carbon image from a pressure process lettering machine?
1. Burnish the tape
 2. Laminate the tape
 3. Spray the tape with fixative
 4. Spray the tape with clear spray paint

- 4-41. Why must you be careful when using a carbon lettered strip on master artwork you intend to expose to hot lights?
1. Adhesive seepage
 2. Melted carbon image
 3. Melted plastic carrier
 4. Dry and cracked carbon image
- 4-42. When you peel the backing paper away from a strip of cutout lettering, what angle must you attempt to maintain?
1. A low angle
 2. A high angle
 3. A 90-degree angle
 4. A 45-degree angle
- 4-43. Engravers resemble what drafting instrument in principle and construction?
1. A hand-lettering set
 2. A drafting machine
 3. A pantograph
 4. A trammel
- 4-44. For what item would you use a diamond-tipped cutter?
1. A plastic water fountain sign
 2. A brass trophy plate
 3. A plastic door sign
 4. A plastic nameplate
- 4-45. For what item would you connect the pulley and motor to engrave?
1. A plastic door sign
 2. A brass trophy plate
 3. An aluminium desk plate
 4. A brass shadow box plate
- 4-46. When preparing to use the engraver, in addition to cleaning away debris, what should you be concerned about?
1. Debris in the galley
 2. Sharp cutter points
 3. Debris in the jaws
 4. Sawdust
- 4-47. While you are engraving, what is the purpose of your left hand?
1. To apply pressure to the cutter
 2. To apply pressure to the tracer
 3. To apply pressure to the forehead
 4. To tighten the thumbscrews in the galley
- 4-48. While you are engraving, what is the purpose of your right hand?
1. To apply pressure to the cutter
 2. To apply pressure to the tracer
 3. To apply pressure to the forehead
 4. To tighten the thumbscrews in the galley
- 4-49. From where do process cameras derive power?
1. Timers
 2. Battery
 3. Electricity
 4. Rotating handwheels
- 4-50. What should you look for in the battery compartment of a battery-driven camera?
1. Battery color
 2. Clean contacts
 3. Dust and debris
 4. Swollen or leaking batteries
- 4-51. What feature is typical of a darkroom type process camera?
1. A film plane built into a wall
 2. Absence of handwheels
 3. Vertical orientation
 4. Free-standing unit
- 4-52. How many parallel planes comprise a process camera system?
1. One
 2. Two
 3. Three
 4. Four
- 4-53. What is the purpose of the copy plane?
1. To hold the copy in place
 2. To hold the lens in place
 3. To hold the film in place
 4. To hold the lights in place
- 4-54. The plane that holds the lens in place also performs which additional function?
1. To assist in proportional reductions and enlargements
 2. To assist in fine focusing of the image
 3. To align original copy
 4. To hold filters

- 4-55. You attach halftone and color separation filters to which of the following planes?
1. The copy plane
 2. The lens plane
 3. The film plane
 4. The pressure plane
- 4-56. To maintain the lighttight integrity of the camera system is the function of what camera element?
1. The focusing control
 2. The copy plane
 3. The bellows
 4. The scales
- 4-57. An automated camera that sets the aperture after you set the shutter speed is what type of camera?
1. Shutter speed priority
 2. Aperture priority
 3. Automatic
 4. Manual
- 4-58. What type of light is a principal requirement for good photographic exposures?
1. Copy
 2. Normal
 3. Fluorescent
 4. Temperature matched
- 4-59. You should select a copyboard illuminated from underneath to shoot 35mm slide film for which of the following effects?
1. Even illumination
 2. Light enters lens directly
 3. Control of negative density
 4. Minimization of surface flaws in the artwork
- 4-60. Light temperature or an unbalanced light source will unevenly render color on black-and-white photographs.
1. True
 2. False
- 4-61. You would NOT select a 3400 degree Kelvin light source for general-purpose work for what reason?
1. Too hot a light source
 2. Too cool a light source
 3. Too short a useful life
 4. Too expensive to replenish
- 4-62. What type of light would you select to illuminate artwork created on a heavily toothed cardstock evenly?
1. 3200 degree K
 2. 3400 degree K
 3. Fluorescent
 4. Quartz iodine
- 4-63. What is the purpose of a lens hood?
1. To protect the bulb
 2. To protect the artwork
 3. To prevent dust on the light
 4. To prevent glare and stray light
- 4-64. Why is it necessary for you to replace all lights in an assembly when only one light burns out?
1. They are sold in sets only
 2. They will all be clean and new
 3. They will all be the same brand
 4. They will all have the same color temperature
- 4-65. The main difference between a single lens reflex and a rangefinder camera is in what feature?
1. The way an image projects onto the film plane
 2. The shutter speed selection
 3. The aperture selection
 4. The focusing mechanism
- 4-66. What is parallax?
1. A waxy deposit left by swollen batteries
 2. The spectral coating that reflects glare from a lens's surface
 3. The distance between the viewing lens and the lens through which the exposure is made
 4. The distance between the film plane and the object being photographed
- 4-67. Why are certain 35mm cameras sometimes called a single lens reflex?
1. Only one lens is used at a time
 2. Only one lens records on film
 3. Only one lens is available for a single lens reflex
 4. The viewing lens is the same lens that records the image

- 4-68. With 35mm photography, what item takes the place of the copy plane?
1. The object
 2. The f/stops
 3. The shutter
 4. The automatic sensors
- 4-69. As you select a smaller focal length lens, what, if anything, can you expect to happen to the rated speed of the lens?
1. It will be slower
 2. It will be faster
 3. It will be smaller
 4. Nothing will happen to it
- 4-70. Your task is to photograph a small machine part for a 35mm color slide. What lens would you select?
1. Short range
 2. Standard
 3. Variable
 4. Macro
- 4-71. You are in a situation that is deteriorating rapidly. You have the only camera handy and know the CO will want photographs. What action can you take?
1. Use the rule of f/16
 2. Give the camera to the PH
 3. Ignore the situation
 4. Carefully determine each exposure, risking loss of an important scene
- 4-72. After you set the shutter speed to T and depress the shutter button, how long will the shutter remain open?
1. 1 second
 2. 2 seconds
 3. 3 seconds
 4. Until you depress the shutter button again
- 4-73. Because the PH is not available, you are shooting the retirement of the command master chief in the auditorium. What film type reasonably ensures correct exposure?
1. ISO 1000
 2. ISO 400
 3. ISO 125
 4. ISO 25
- 4-74. The repair officer summons you to photograph a broken pulley in the nuclear storage facility. There is ample light, you have a fast lens, plenty of time, and you suspect he or she will want detailed enlargements. Which film should you select?
1. ISO 2000
 2. ISO 400
 3. ISO 200
 4. ISO 25
- 4-75. You are reproducing slides for which there is no existing artwork. What additional corrections can you make with a slide duplicator?
1. Minor exposure and compositional errors
 2. Extreme exposure errors
 3. Serious compositional errors
 4. Color balance errors